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1995 Statistical Report

Sexually Transmitted Disease Services

Alberta
HEALTH

For additional copies of this report, contact:

Sexually Transmitted Disease Services
Alberta Health
4th floor, 10101 – 109 Street
Edmonton, Alberta T5J 1M8

Telephone (403) 427-2830
Fax (403) 422-2892

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ISSN 1207 – 4985

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Executive Summary

Sexually Transmitted Disease (STD) Services provides a comprehensive program to control STD in Alberta. The 1995 report presents current STD statistics and trends in Alberta. The data is analyzed using the population projections obtained by Alberta Health and from the Statistics Branch of Alberta Treasury.

This report also includes an overview of diagnostic and treatment services available through clinics in Calgary, Edmonton and Fort McMurray (operated under the auspices of the Northern Lights Regional Health Authority). In addition, it contains a synopsis of the research undertaken and completed by the Clinical Investigation Unit as it contributes to improved diagnosis and management of STD. The report also provides an outline of epidemiologic services that include partner notification for STD, including HIV infections. Also contained in the report are the activities undertaken by the Education Unit, which is responsible for disseminating STD/HIV/AIDS information to public and professional audiences.

The list of notifiable STD, includes non-gonococcal urethritis/ mucopurulent cervicitis (NGU/MPC), *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, syphilis, chancroid and lymphogranuloma venereum. In 1995, there was one case of chancroid and no cases of lymphogranuloma venereum identified. Although HIV/AIDS is not reportable to STD Services, information on HIV/AIDS has been included because it is a significant part of the STD program.

The incidence of *Chlamydia trachomatis* and *Neisseria gonorrhoeae* decreased in 1995. *Chlamydia trachomatis* continues to be the most frequently identified sexually transmitted bacterial pathogen, and the rate of 175.1 per 100,000 population is a decrease of six percent from the previous year. Unchanged from 1994 the highest incidence was seen in women aged 15 to 24, followed by men aged 20 to 24. Although not as dramatic as in 1994, the 22 percent decrease in incidence for *Neisseria gonorrhoeae* from 18.6 per 100,000 population to 14.5 per 100,000 population, reflects the decline of this infection world wide. The highest incidence of *Neisseria gonorrhoeae* was found in women aged 20 to 24 (in previous years the highest incidence had been seen in women aged 15 to 19). This was followed by women aged 15 to 19 and men aged 20 to 29. Although the incidence of *Neisseria gonorrhoeae* has declined, there continues to be a high level of antimicrobial resistance. The very low incidence of syphilis continues with a rate of 1.4 per 100,000 population and only four cases of infectious syphilis in 1995.

Overall attendance at the three STD clinics was identical to 1994. However, Fort McMurray and Edmonton saw increases of 14 percent and two percent respectively. HIV-related visits increased a further 11 percent and accounted for 54 percent of all clinic visits. The male to female ratio remained stable at 1.5:1. In contrast, the predominance of men seen by clinic physicians is demonstrated by the male to female ratio of 3.8:1. However, this is a change from 1994, when the male to female ratio was 4.8:1. The explanation is an increasing number of women with HIV attending the clinics for ongoing care.

Disease prevention and health promotion related to STD/HIV/AIDS is the focus of the Education Unit. In 1995, nurse educators provided 665 sessions. In addition, the medical staff made 49 presentations. The largest number of presentations were made to students. These age categories exhibit the highest incidence of the notifiable STD and are at greatest risk.

The regular and consistent use of the telephone information system demonstrates the broad endorsement and accessibility of this service. In 1995, 28,672 calls were made to the toll-free, province-wide STD/HIV/AIDS information line. An additional 10,456 calls were answered directly by the nurses.

The Clinical Investigation Unit, with two clinical research nurses and a laboratory technologist on staff, completed another successful year. Six research projects were completed, six were ongoing and an additional eight were initiated during 1995.

The central control office in Edmonton, the clinics and the mobile unit continue to provide consultation to physicians as well as a range of epidemiologic services. In 1995, a total of 3,900 investigations were conducted to locate partners of individuals with notifiable infections including HIV/AIDS and to ensure appropriate treatment of infected individuals. Of these investigations 86 percent were completed successfully.

Incidence of Neisseria gonorrhoeae

In 1995, there were 401 cases of *Neisseria gonorrhoeae* reported with an overall rate of 14.5 per 100,000 population. Although not as dramatic as the decrease in 1994, this 22 percent decline in incidence continues the trend that began in 1990. The male to female ratio of 1.3:1 is similar to the previous year.

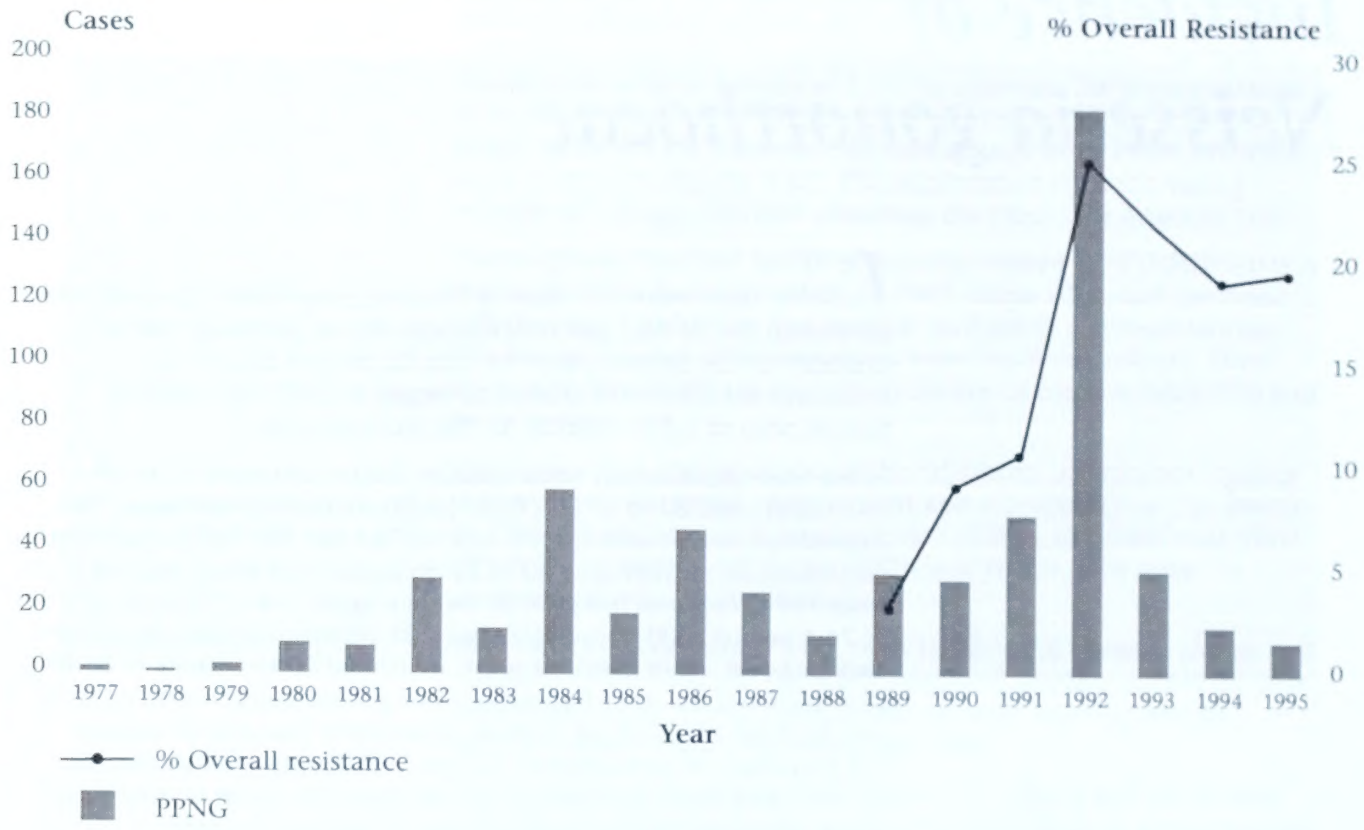
There were significantly more females than males aged 15 to 19 ($p < 0.001$) and 20 to 24 ($p < 0.001$) with *Neisseria gonorrhoeae*. The highest age and gender specific rate of 76.5 per 100,000 population was found in women aged 20 to 24 an increase of seven percent from 1994. This was followed by women aged 15 to 19 with a rate of 74.4 per 100,000 population and a 25 percent decrease from the previous year. As in previous years, men aged 20 to 24 and 25 to 29 demonstrated the next highest age and gender specific rates of 56.3 and 50.2 per 100,000 population respectively. The goal to reduce the incidence of gonorrhea to 150 per 100,000 population for the 15 to 19 and 20 to 24 year old age categories has been maintained. There continues to be a small number of cases of *Neisseria gonorrhoeae* in children under 14 years of age.

Table 1 — *Neisseria gonorrhoeae* Cases and Rates by Age and Sex, Alberta, 1995

	Male		Female		Total	
Age (years)	Cases	Rate*	Cases	Rate*	Cases	Rate*
<1	0	0	1	1.5	1	0.7
1 – 4	0		2		2	
5 – 9	0		0		0	
10 – 14	1	0.9	6	5.8	7	3.3
15 – 19	28	28.5	69	74.4	97	50.8
20 – 24	54	56.3	72	76.5	126	66.3
25 – 29	52	50.2	13	12.5	65	31.3
30 – 39	62	23.8	14	5.4	76	14.7
40 – 59	25	7.5	1	0.3	26	4.0
60 +	1	0.6	0	0	1	0.3
Total	223	16.1	178	12.9	401	14.5

**Rate per 100,000 population*

Figure 1 — Cases of Penicillinase-producing *Neisseria gonorrhoeae* Alberta, 1977 – 1995



Antimicrobial resistance is an important consideration when treating *Neisseria gonorrhoeae*. Overall resistance is 19.7 percent unchanged from 1994. The incidence of penicillinase producing *Neisseria gonorrhoeae* (PPNG) decreased by 31 percent. Sensitivity to penicillin, tetracycline and ciprofloxacin was documented for 93 percent of all isolates. Resistance to ciprofloxacin was reported for one isolate and intermediate resistance for two isolates. Resistance or intermediate resistance to penicillin and tetracycline was reported for 81 percent and 61 percent of isolates respectively. There were a total of 11 cases of PPNG. Nine of the individuals acquired their infection in a known PPNG endemic area and infected two partners in Alberta. Ten of the 11 cases occurred in the city of Calgary.

Incidence of Syphilis

With a total of only 38 new cases and an overall rate of 1.4 per 100,000 population, the very low incidence of syphilis continues. This is a decrease in rate of 42 percent from 1994. The male to female ratio of 2:1 is a change from the previous year. This is likely transient and a reflection of fewer cases of latent disease in women over age 40. Of the 38 cases four were classified as primary syphilis (infectious) and the other 34 were late latent disease (non infectious). Three of the four cases of infectious syphilis occurred in men. All individuals with infectious syphilis were between the ages of 19 and 26 years.

The highest age and gender specific rates for syphilis, were found in males age 25 to 29, over age 60, and 40 to 59 with rates of 3.9, 3.6, and 2.4 per 100,000 population respectively. The higher incidence in persons over age 40 is likely a reflection of late latent syphilis detected when individuals are screened for immigration purposes. There were six cases of late latent syphilis in patients under age 29 (4 men and 2 women). Two of the four men were identified through immigration screening and two through other routine screening. The two women were identified through prenatal screening. There were no cases of congenital syphilis or neurosyphilis.

Table 2 — Syphilis Cases and Rates by Age and Sex, Alberta, 1995

	Male		Female		Total	
Age (years)	Cases	Rate*	Cases	Rate*	Cases	Rate*
15 – 19	2	2.0	1	1.1	3	1.6
20 – 24	1	1.0	1	1.1	2	1.1
25 – 29	4	3.9	1	1.0	5	2.4
30 – 39	4	1.5	3	1.2	7	1.4
40 – 59	8	2.4	3	1.0	11	1.7
60+	6	3.6	4	2.0	10	2.7
Total	25	1.8	13	1.0	38	1.4

**Rate per 100,000 population*

Incidence of Chlamydia trachomatis

Chlamydia trachomatis continues to be the most frequently identified sexually transmitted bacterial pathogen. In 1995, there were 4,838 cases with a rate of 175.1 per 100,000 population. This represents an overall decrease of six percent in rate, similar to the five percent decrease reported in 1994. If this steady decline continues we can expect a rate of 125.8 per 100,000 population by the year 2000. This gradual decline reflects the education initiatives that have been targeted at both health care workers and individuals at greatest risk of acquiring the infection, as well as partner notification which facilitates early identification and treatment of cases.

There were significantly more incidents of *Chlamydia trachomatis* in women of all ages than in men ($p < 0.001$). Similar to 1994 the highest age and gender specific rate is found in women aged 15 to 19 and 20 to 24 with rates of 1709.5 per 100,000 population and 1475.3 per 100,000 population respectively. This was followed by men aged 20 to 24 with a rate of 506.0 per 100,000 population. The rate of 246.4 per 100,000 population in men age 15 to 19 is a five percent increase and contrasts to the one percent decrease seen in women of the same age. However, men aged 25 to 29 demonstrated a 15 percent decrease in rate.

The male to female ratio of 1:3.3 is similar to 1994 and contrasts to the ratio seen for other sexually transmitted diseases. This indicates a disproportionate number of women diagnosed with *Chlamydia trachomatis* and is due to increased detection of asymptomatic women through screening. The lower rates in men suggest that partners of these women are treated without laboratory testing and consequently not reported.

The incidence in children less than one year of age shows a decrease from 1994. However, the importance of screening at risk pregnant women in the third trimester to prevent perinatal transmission will continue to be stressed.

Table 3 — *Chlamydia trachomatis* Cases and Rates by Age and Sex Alberta, 1995

	Male		Female		Total	
Age (years)	Cases	Rate*	Cases	Rate*	Cases	Rate*
< 1	2	1.4	4	1.9	6	1.6
1 – 4	1		0		1	
5 – 9	0		0		0	
10 – 14	3	2.7	67	64.5	70	32.8
15 – 19	242	246.4	1586	1709.5	1828	957.1
20 – 24	485	506.0	1389	1475.3	1874	986.3
25 – 29	194	187.3	400	384.8	594	286.2
30 – 39	145	55.8	242	94.2	387	74.9
40 – 59	40	12.0	30	9.4	70	10.7
60+	3	1.8	2	1.0	5	1.4
age not stated	1		2		3	
Total	1116	80.5	3722	270.3	4838	175.1

**Rate per 100,000 population*

Incidence of Non-gonococcal Urethritis/Mucopurulent Cervicitis (NGU/MPC)

The goal to reduce the incidence of NGU/MPC to 100 per 100,000 population by the year 2000 was close to being accomplished in 1995. The overall incidence decreased by four percent to a rate of 100.7 per 100,000 population. A greater decrease was seen in men (6 percent) than in women (one percent). Unchanged from previous years, there is a significant difference in incidence between men and women, as demonstrated by the male to female ratio of 2.5:1. This difference is likely due to men recognizing and health care providers diagnosing an STD in the symptomatic male more readily than in the asymptomatic female.

As in previous years, the highest age and gender specific rates are found in men between the ages of 15 and 29. A decrease in incidence was seen in men aged 15 to 19 and 20 to 24 with rates of 242.4 and 648.9 per 100,000 population respectively.

The decrease seen in men 15 to 19 reverses the upward trend of the previous three years. However, the rate of 384.3 per 100,000 population found in men 25 to 29 is a seven percent increase.

Table 4 — Non-gonococcal Urethritis/Mucopurulent Cervicitis Cases and Rates by Age and Sex, Alberta 1995

	Male		Female		Total	
Age (years)	Cases	Rate*	Cases	Rate*	Cases	Rate*
10 – 14	4	3.7	8	7.7	12	5.6
15 – 19	238	242.4	230	248.0	468	245.0
20 – 24	622	648.9	247	262.3	869	457.3
25 – 29	398	384.3	135	129.9	533	256.8
30 – 39	452	173.8	118	45.9	570	110.2
40 – 59	192	57.8	39	12.2	231	35.4
60 +	19	11.4	1	0.5	20	5.5
age not stated	61		17		78	
Total	1986	143.3	795	57.7	2781	100.7

**Rate per 100,000 population*

Notification by Reporting Agency

Physicians and the STD clinics in Calgary, Edmonton and Fort McMurray share responsibility for the diagnosis and treatment of sexually transmitted diseases in Alberta.

In 1995, physicians diagnosed and treated 62 percent and 81 percent of the notifiable, organism-specific diseases (*Neisseria gonorrhoeae* and *Chlamydia trachomatis*). The three STD clinics diagnosed and treated 29 percent of cases of *Neisseria gonorrhoeae*. This is an increase of five percent that was accounted for by an increase in reports from the Calgary and Fort McMurray clinics. Similar to 1994, 11 percent of cases of *Chlamydia trachomatis* were reported by the STD clinics. In addition, nine percent of cases of *Neisseria gonorrhoeae* and *Chlamydia trachomatis* were reported by the laboratory only. This is unchanged from 1994.

The proportion of cases of NGU/MPC reported by physicians was 55 percent. The three STD clinics accounted for the remaining 45 percent. These figures are comparable to 1994.

Figure 2 — Percentage of Reported Cases of *Neisseria gonorrhoeae* by Reporting Agency, Alberta, 1995

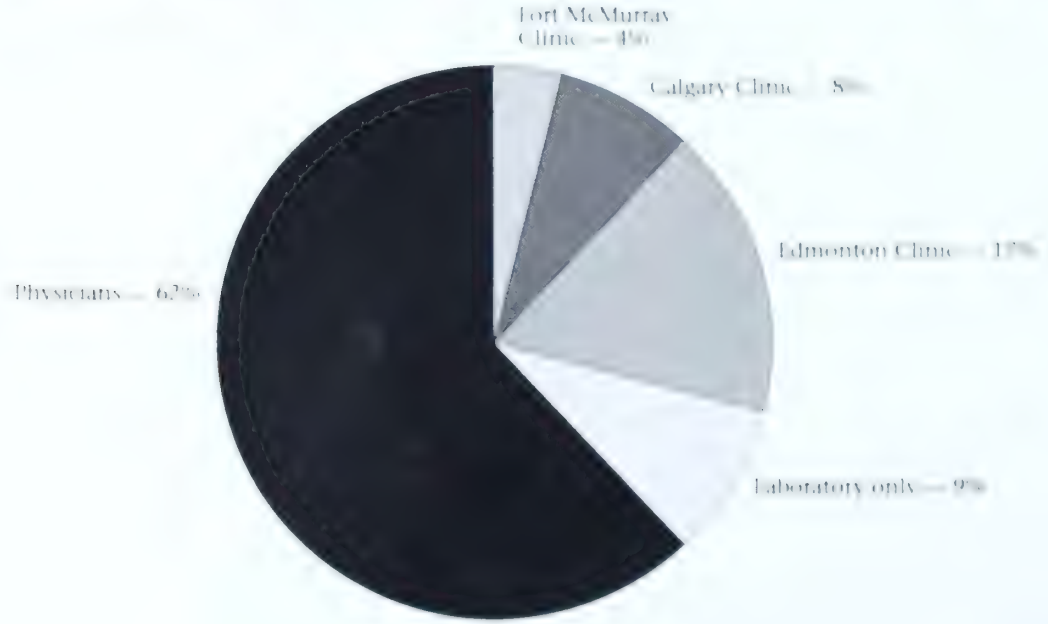


Figure 3 — Percentage of Reported Cases of *Chlamydia trachomatis* by Reporting Agency, Alberta, 1995

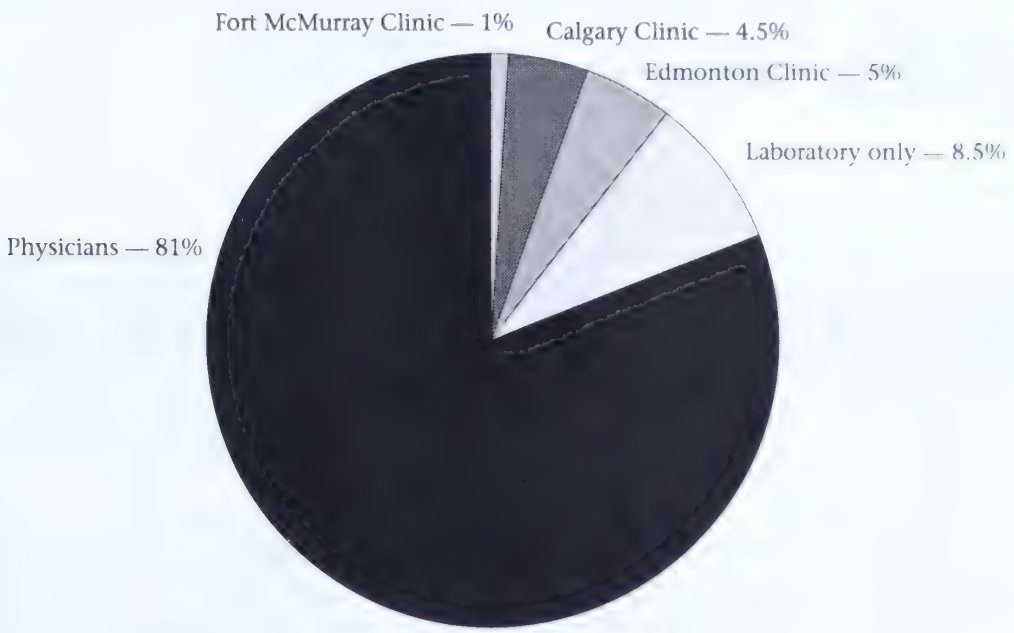
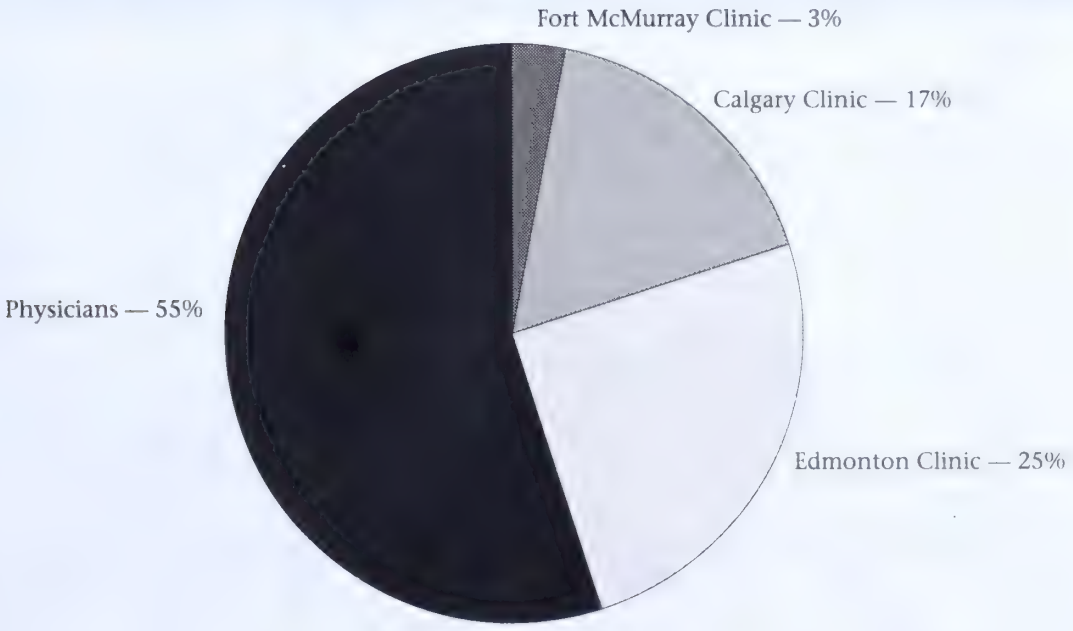


Figure 4 — Percentage of Reported Cases of Non-gonococcal Urethritis/Mucopurulent Cervicitis by Reporting Agency, Alberta, 1995

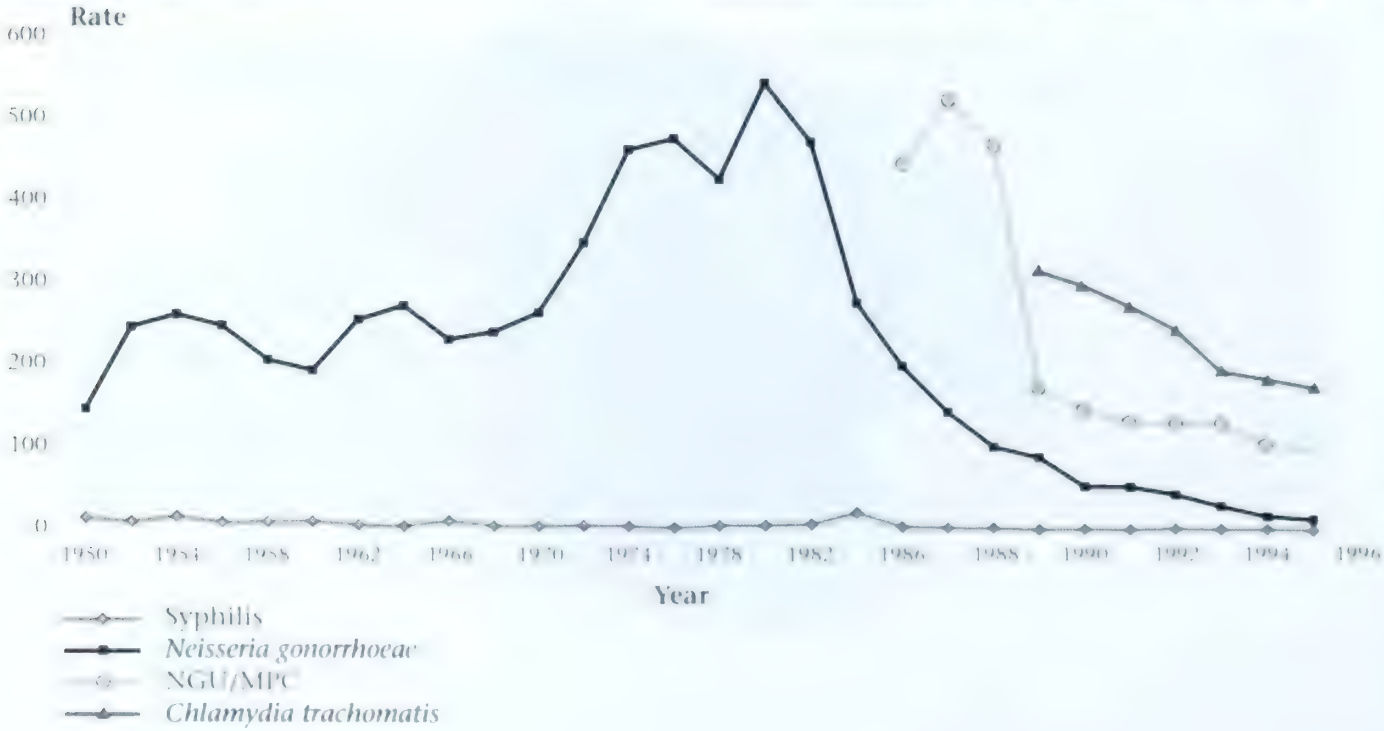


Trends in Sexually Transmitted Disease Since 1950

The true incidence of sexually transmitted disease is unknown due to the large number of non-reportable diseases. Infections like herpes simplex and human papilloma virus (venereal warts) likely occur with greater frequency than the traditional reportable STD's. One of the outcomes of an effective control program can be demonstrated by declining disease incidence. In 1995, reportable STDs continued the consistent decrease in numbers and rates that have been noted in past years.

The incidence of *Neisseria gonorrhoeae* declined by 22 percent from a rate of 18.6 per 100,000 population in 1994 to 14.5 per 100,000 population in 1995. Although not as dramatic as the 40 percent decrease seen in 1994, this continues the trend that began in 1980. Penicillinase producing *Neisseria gonorrhoeae* (PPNG) decreased by 31 percent to 11 cases. This is the lowest number reported since 1981. In spite of this decrease, overall antimicrobial resistance to *Neisseria gonorrhoeae* remains high at 19.7 percent.

Figure 5 — Incidence Rate per 100,000 Population for Syphilis, *Neisseria gonorrhoeae, Chlamydia trachomatis,* and Non-gonococcal Urethritis/Mucopurulent Cervicitis, 1950 – 1995, Alberta



In 1995, *Chlamydia trachomatis* decreased by six percent from a rate of 185.7 per 100,000 population in 1994 to 175.1 per 100,000. Though not as striking as the decline in *Neisseria gonorrhoeae* over the past five years, there has been a consistent decrease in incidence since *Chlamydia trachomatis* became reportable in 1986. During the same period of time, the incidence of NGU/MPC has demonstrated a similar decline. In 1995, the incidence decreased four percent to a rate of 100.7 per 100,000 population.

With only 38 cases and a rate of 1.4 per 100,000 population the incidence of syphilis is once again the lowest on record. There was one case of chancroid and no cases of lymphogranuloma venereum.

Table 5 — Syphilis, *Neisseria gonorrhoeae, Chlamydia trachomatis*, Non-gonococcal Urethritis/ Mucopurulent Cervicitis Cases and Rates per 100,000 Population, Alberta, 1950 – 1995

Year	Gonorrhoeae		Syphilis		NGU/MPC		Chlamydia	
1950	1981	152.0	165	18.1				
1952	2450	251.8	135	13.9				
1954	2819	266.7	212	20.1				
1956	2842	253.0	145	12.9				
1958	2548	211.3	167	13.8				
1960	2560	198.3	186	14.4				
1962	3560	260.0	134	9.8				
1964	3953	276.7	110	7.7				
1966	3447	235.7	208	14.2				
1968	3729	244.4	118	7.7				
1970	4290	268.1	134	8.0				
1972	5842	353.2	143	8.6				
1974	8036	466.9	136	7.8				
1976	8657	480.3	108	5.7				
1978	8451	430.9	165	8.4				
1980	11474	547.8	181	8.6				
1982	11066	476.3	225	9.7				
1984	6712	279.9	574	23.9				
1986	4991	203.0	162	6.7	11051	448.7		
1987	4107	146.9	132	5.5	12753	527.9		
1988	2536	104.2	110	4.6	11567	475.5		
1989	2217	91.2	74	3.0	4277	175.9	7727	318.0
1990	1380	55.9	90	3.6	3693	149.5	7412	300.1
1991	1393	55.2	73	2.9	3386	134.3	6936	275.1
1992	1174	45.8	100	3.9	3393	132.3	6335	247.0
1993	831	31.2	74	2.8	3524	132.4	5208	195.6
1994	506	18.6	66	2.4	2859	105.3	5043	185.7
1995	401	14.5	38	1.4	2781	100.7	4838	175.1

Human Immunodeficiency Virus (HIV) Serologic Testing

HIV seropositivity is not a notifiable condition in Alberta. Serologic testing for HIV is performed by the Provincial Laboratories of Public Health in Edmonton and Calgary and the laboratories of the Canadian Red Cross Blood Transfusion Service. These laboratories report non-nominal epidemiologic information to Communicable Disease Control and Epidemiology, Alberta Health.

The number of serologic tests performed at the Provincial laboratories increased 1.3 percent, a dramatic decrease from the 13 percent rise recorded in 1994. Seropositivity also decreased from 0.5 percent to 0.3 percent. Red Cross screening did not identify any infected individuals.

The number of new HIV infections recorded in 1995 fell 29.5 percent from 1994. There were three newly recognized infections in recipients of blood and blood products. The only other increase was the "other" category which rose by 15 percent. New infections for the risk factor categories of homosexual, heterosexual and injection drug use fell 33, 29, and 45 percent respectively. Homosexual men continue to comprise the largest group of seropositive individuals. However the cumulative percent positive for this group continues its decline and fell a further 1.4 percent in 1995. Injection drug users, who demonstrate the second highest risk factor, showed an increase of one percent in cumulative percent positive. The number of reactive serologies attributable to heterosexual transmission resulted in a cumulative percent positive of 6.3 percent, an increase from the previous 5.9 percent.

A cumulative total of 250 samples from females have been found to be positive; 233 in adult women. Since reporting is non-nominal, this does not necessarily indicate 233 infected individuals. No risk information was available for 29 females. Of the remaining 204, 85 acquired infection through heterosexual contact, 20 by receiving infected blood or blood products, 86 by injection drug use and ten were from an endemic area. The three remaining adult females were classified as "other" risk. A dramatic increase was seen in the number of infants born to seropositive women. The previous total was seven, but in 1995 ten new seropositive infants were identified, bringing the cumulative total to 17.

It is difficult to generalize about the prevalence of HIV, as individuals self select whether or not they are tested. The level of infection appears to be decreasing. However, the dramatic increase in the number of infected infants is a tragic result of heterosexual/injection drug use transmission and subsequent pregnancy. Persons who engage in unprotected sexual contact with multiple partners, and those who inject drugs and share needles must recognize that they are placing themselves, their sexual/needle sharing partners and unborn children at risk.

Table 6 — HIV Serological Testing, Alberta, 1986 – 1995

	Provincial Laboratory		Red Cross	
Year	Total Tested	Number Positive (%)	Total Tested	Number Positive (%)
1986	2,156	212 (9.8)	156,304	26 (0.017)
1987	12,862	319 (2.5)	122,443	6 (0.005)
1988	12,786	232 (1.8)	123,782	2 (0.002)
1989	13,262	331 (2.5)	122,342	6 (0.005)
1990	16,612	253 (1.5)	125,503	1 (0.001)
1991	25,387	262 (1.0)	133,444	0 (0.000)
1992	46,181	307 (0.7)	126,801	2 (0.002)
1993	49,022	228 (0.5)	118,828	1 (0.0008)
1994	55,429	258 (0.5)	112,039	2 (0.0018)
1995	56,144	182 (0.3)	107,091	0
Total	289,841	2584 (0.9)	1,248,577	46 (0.004)

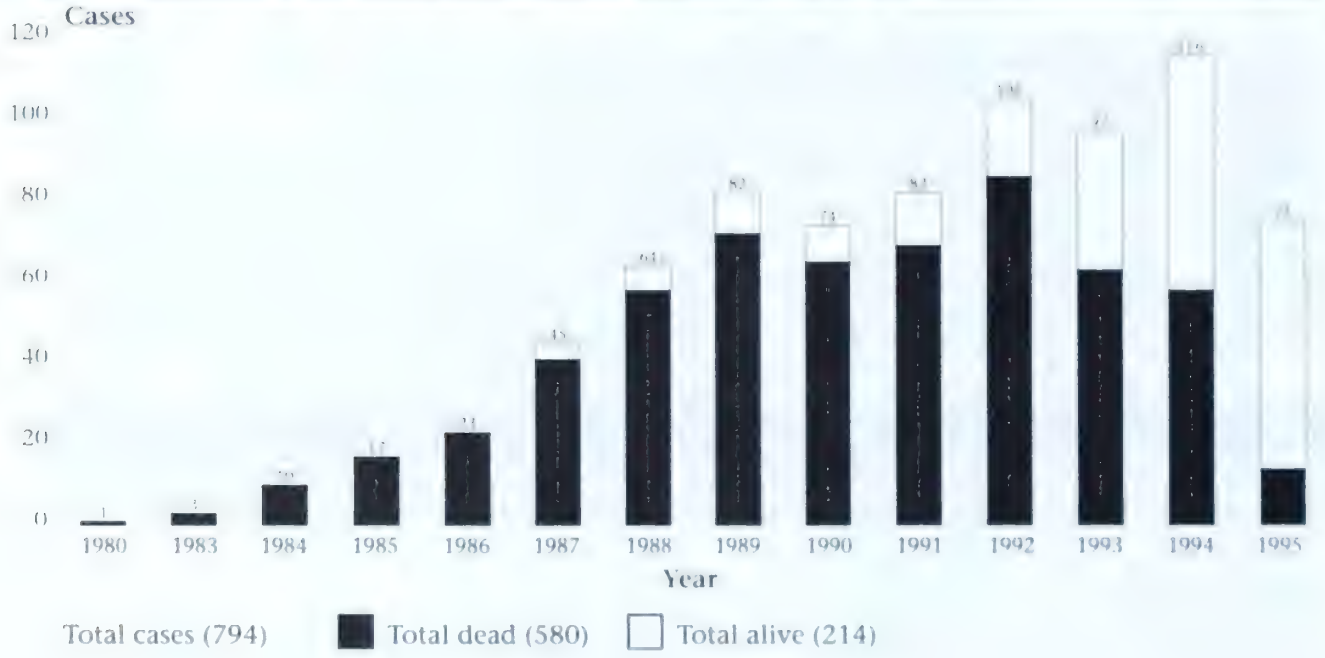
Table 7 — HIV Seropositivity by Risk Factor and Year, Alberta, 1986 – 1995

Risk Factor	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Cumulative	(%)
Homosexual	163	203	185	192	171	186	189	121	120	81	1611	62.3
Blood Recipient	7	36	16	17	8	6	4	1	0	3	98	3.8
Heterosexual	0	6	4	8	10	14	37	30	31	22	162	6.3
Other	6	17	2	28	18	13	13	17	26	30	170	6.6
Injection drug use	2	5	5	8	15	27	41	52	76	42	273	10.6
Not stated	34	52	20	78	31	16	23	7	5	4	270	10.4
Total	212	319	232	331	253	262	307	228	258	182	2584	100

Acquired Immunodeficiency Syndrome (AIDS)

Since Alberta reported its first case of AIDS in 1980, there have been a cumulative total of 794 cases. Throughout this section, the numbers have been updated to accurately reflect unreported cases diagnosed in earlier years. During 1995, there were 75 new cases, a 35 percent decrease from the 116 cases in 1994. Although this appears to be a dramatic decrease, consideration must be given to the reporting delay which occurs. This is demonstrated by the 97 cases originally reported in 1994 and now adjusted to 116.

Figure 6 — New AIDS Cases by Year of Onset, Alberta, 1980 – 1995



On a regional basis, the proportion of cases from the four areas is essentially unchanged. Calgary continues to have the highest new and cumulative number of cases. New cases rose 2.3 percent in Calgary, fell 4.8 percent in Edmonton and remained essentially unchanged from the "north" (city of Red Deer and north excluding Edmonton). Cases from the "south" rose 2.9 percent. Similarly, the age distribution and primary diagnosis of patients also remains unchanged.

Table 8 — New and Cumulative AIDS Cases by Location, Alberta, 1980 – 1995

Location	New Cases	(%)	Total Cases	(%)
Calgary	57	(59.4)	460	(57.9)
Edmonton	26	(27.1)	247	(31.1)
North*	7	(7.3)	42	(5.3)
South	6	(6.3)	45	(5.7)
Total	96^	(100)	794	(100)

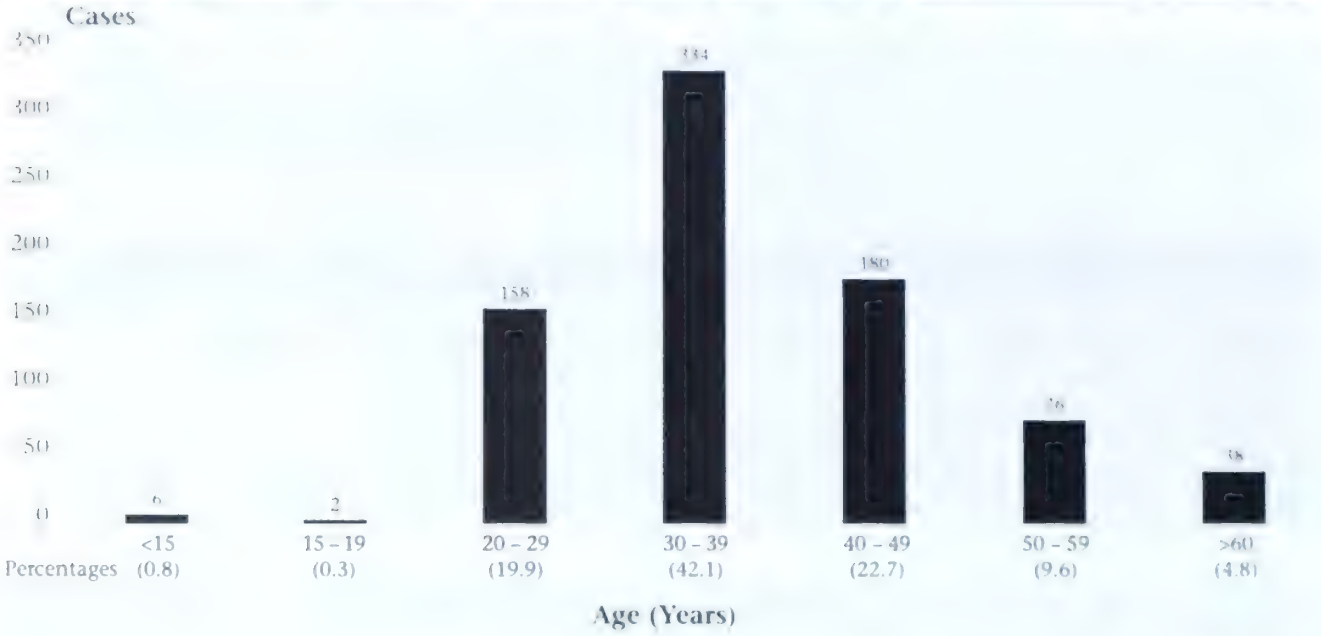
** Refers to the city of Red Deer and North excluding Edmonton*

^ Although these cases were reported in 1995 only 75 have 1995 as year of onset. The remaining cases have been used to update figures from previous years.

Table 9 — AIDS Patients Primary Diagnosis, Alberta, 1980 – 1995

Primary Diagnosis	Number	(%)
Pneumocystis carinii pneumonia (PCP)	353	(44.5)
Kaposi's Sarcoma (KS)	85	(10.7)
PCP & KS	20	(2.5)
Other opportunistic infections	202	(25.4)
Other malignancies	36	(4.5)
HIV wasting	62	(7.8)
HIV encephalopathy	30	(3.8)
Other	6	(0.8)
Total	794	(100)

Figure 7 — Age of AIDS Patients at Diagnosis, Alberta, 1980 – 1995



The distribution of risk behaviour or exposure for new cases did demonstrate some shifts in 1995. Men having sex with men accounted for 69.7 percent of new cases, a decrease of 5 percent from 1994. However this was offset by an increase of 3.5 percent among injection drug using men who have sex with other men. Similarly, there was an increase in heterosexual cases rising from 6 percent in 1994 to 9.4 percent in 1995. Recipients of infected blood or blood products accounted for 5.2 per cent of cases, an increase of 1.8 percent from 1994.

Minor changes are seen in the cumulative cases. Increases continue to be found among heterosexuals and injection drug using men who have sex with other men. The only decrease occurred in men who have sex with other men (1.2 percent). The rates remained stable in heterosexual injection drug users, recipients of blood or blood products, children and individuals from endemic areas. There were no AIDS cases in 1995, attributed to the paediatric or endemic groups.

Figure 8 — Cumulative AIDS Cases by Risk, Alberta, 1980 – 1995

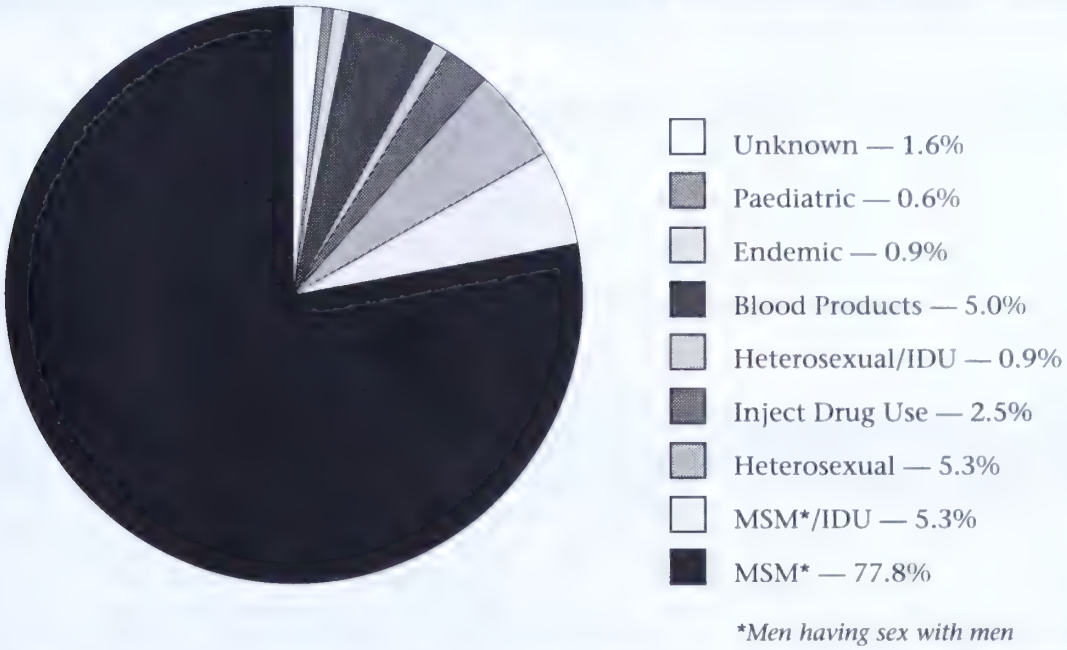
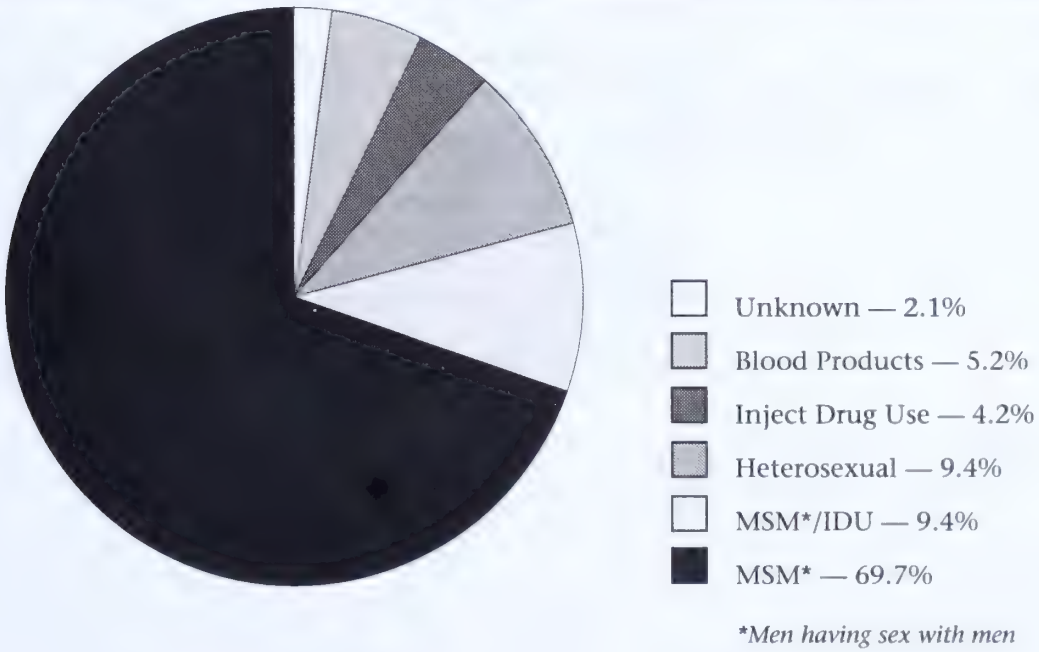


Figure 9 — New AIDS Cases by Risk, Alberta, 1995



Partner Notification and Positive Test Investigation

Identifying new cases by notifying partners is one of the more effective strategies used to control STD, including HIV/AIDS. Partners listed on STD notifications from physicians, as well as partners identified by patients attending the STD clinics are located and advised to be tested and treated. In 1995, 61 percent of the 5,653 notifications of reportable STD's from physicians and STD clinics contained information on partners. The ratio of contacts with sufficient information to total notifications ranges from 0.6:1 for physicians, to an average of 0.7:1 for the STD clinics (range 0.6:1 to 0.8:1). There was sufficient information to initiate an investigation to locate 3933 partners, 56 percent of the 7,084 partners identified. Of this number, investigations were carried out on 2,402 partners. No attempt was made to notify the additional 1,531 partners for two reasons. Either the infected patients chose to locate the partners themselves, or we were already aware that the partner(s) had been treated.

Of the investigations undertaken to locate partners, an average of 84 percent (range 48 percent to 94 percent) were completed successfully.

Ensuring treatment for individuals known to be infected is another important strategy in the control of STD. An investigation is initiated for every reactive syphilis serology when there is no record of treatment. As well, individuals who are at greatest risk of disease sequelae, with laboratory confirmed *Neisseria gonorrhoeae* or *Chlamydia trachomatis*, when treatment has not been confirmed are located and treated appropriately. During 1995, there were 1,498 such investigations undertaken, and 90 percent were completed.

Table 10 — Number of Partners Listed on Notifications Received for Confirmed Cases of *Neisseria gonorrhoeae*, NGU/MPC, *Chlamydia trachomatis* and Syphilis, Alberta, 1995

Reporting Agency	Total Notifications Received	Notifications Received with Partner Information	Total Number of Partners	Partners with Sufficient Information for Investigation	Percentage of Total Partners
Physicians	3795	2230	4589	2566	56%
Edmonton Clinic	1013	615	1272	663	52%
Calgary Clinic	721	532	950	594	63%
Fort McMurray Clinic	124	84	273	110	40%
Total	5653	3461	7084	3933	56%

Table 11 — Number and Outcome of Investigations Carried Out by Sexually Transmitted Disease Clinics, Alberta, 1995

Clinics	Partners Notifications			Positive Tests* Investigated		
	Numbers Received	Partners located		Numbers Received	Investigations completed	
		Number	Percentage		Number	Percentage
Edmonton	659	470	71%	526	418	80%
Calgary	444	418	94%	400	394	99%
Fort McMurray	103	49	48%	45	36	80%
Mobile	1196	1078	90%	527	499	95%
Total	2402	2015	94%	1498	1347	90%

** Follow up to positive laboratory reports*

Sexually Transmitted Disease (STD) Clinics — Patient Services

In 1995 the combined patient attendance at the three clinics was identical to the previous year. However, Fort McMurray and Edmonton saw increases of 14 percent and two percent respectively, while Calgary's patient visits decreased three percent. New admissions were up in all clinics ranging from one percent in Edmonton to two percent in Calgary. Return of former patients increased two percent in Edmonton and Fort McMurray while Calgary recorded a decrease of five percent in this category. The male:female ratio of patients remained stable at 1.5:1.

Table 12 — Patient Utilization of STD Clinics, Alberta, 1995

	New Admissions	Former Patients	Total Visits
Edmonton	3759	10944	14703
Calgary	3692	7132	10824
Fort McMurray	318	621	939
Total	7769	18697	26466

HIV related visits increased a further 11 percent after an 18 percent increase in 1994. This single concern accounts for 54 percent of all clinic visits. An increase of 13 percent was seen for women with a slightly smaller increase of nine percent for men. HIV testing, including pre and post test counselling, as well as continuing care for HIV positive individuals are included in the range of services under HIV related visits.

Table 13 — HIV Related Visits at STD Clinics, Alberta, 1995

	Male	Female	Total
Edmonton	4499	2954	7453
Calgary	3829	2432	6261
Fort McMurray	216	310	526
Total	8544	5696	14240

Patient visits by STD diagnosis reflects the degree of importance that HIV plays in the clinic. HIV is the primary reason for clinic attendance at all three facilities followed by STD examinations. Patients categorized under STD examination are usually asymptomatic and concerned that they may have been exposed to a sexually transmitted disease. Human papilloma virus continues to assume increasing importance and ranked as the third most common reason for clinic attendance in Edmonton and Calgary. Approximately two-thirds of all human papilloma virus visits are return visits for ongoing treatment with cryotherapy or podophyllin. Non-gonococcal urethritis continues to be in the top five diagnosis. Among women attending the clinics with vaginitis, candidiasis continues to be the most common etiology followed by bacterial vaginosis. *Chlamydia trachomatis*, gonorrhea, and syphilis are all relatively uncommon reasons for clinic visits and this coincides with the decreasing incidence of these infections.

Table 14 — Patient Visits by STD Diagnosis*, Alberta, 1995

	Edmonton	Calgary	Ft.McMurray
HIV Related	50.6	57.8	56.0
STD Examination	40.8	10.2	25.9
Human papilloma virus	14.5	8.9	1.9
Urethritis — non gonococcal	13.4	8.6	7.2
Cervicitis — non gonococcal	7.7	2.9	9.5
Vaginitis	5.1	8.0	18.0
bacterial vaginosis ◆	26	33	62
candida species	43	52	37
T. vaginalis	31	15	1
Chlamydia trachomatis	2.7	3.8	6.5
Herpes simplex virus	2.0	3.6	3.3
Neisseria gonorrhoeae	1.2	0.7	3.0
Pelvic inflammatory disease	0.9	3.1	0
Syphilis	0.5	1.2	0.3

* *Expressed as percentage of total visits; where appropriate sex specific*

◆ *proportion of all cases of vaginitis*

Both the Edmonton and Calgary clinics have a clinic physician on staff. The proportion of patients seen by the physicians in Edmonton remained constant at seven percent. There was a significant fall in Calgary due to the loss of the permanent clinic physician. There continues to be a striking predominance of men seen by physicians (male:female ratio 3.8:1). This ratio is explained by the major role the physician clinics assume in providing ongoing care for patients infected with HIV.

Table 15 — STD Physician Visits, Alberta, 1995

	Physician Visits		
	Male	Female	Total
Edmonton	832	152	984
Calgary	287	140	427
Total	1119	292	1411

Sexually Transmitted Disease (STD) Clinics — Serologic Tests

Although clinic attendance remained the same in 1994 and 1995, there was a two percent increase in serologic testing. This is primarily due to increased HIV testing. The overall increase in HIV testing was nine percent. Despite this increase, the proportion of reactive results fell somewhat reflecting increased testing of "low risk" individuals. HIV testing lead to the identification of 44 reactive HIV results in 1994. Thirty eight of the reactive results (87 percent) occurred in men; 66 percent in men having sex with men, 29 percent among injection drug users and 5 percent in heterosexuals. Of the six reactive results in women, the route of transmission was injection drug use for five and there was one woman who came from an endemic area. These figures clearly indicate a continuing shift in new HIV infection from men having sex with men to heterosexuals and injection drug users.

The number of serologic tests for syphilis declined by three percent with the proportion reactive demonstrating a similar decrease. Hepatitis B serology increased seven percent. The largest increase was seen in Fort McMurray (21 percent) followed by Edmonton clinic (20 percent). Calgary recorded a 10 percent decrease, which may be related to fewer patient visits. The clinics are now offering hepatitis B vaccine to individuals with a recent history of a sexually transmitted disease or individuals with multiple sex partners. Testing will continue to be an important component of the services offered.

Table 16 — Serologic Testing at STD Clinics, Alberta, 1995

		Syphilis		HIV Antibody		Hepatitis B	Total
		Male	Female	Male	Female		
Edmonton	Taken	2992	2323	2172	1822	1043	10352
	Positive	88 (2.8%)	64 (2.8%)	25 (1.2%)	6 (0.3%)		
Calgary	Taken	2798	1909	1905	1325	686	8623
	Positive	76 (2.7%)	30 (1.6%)	13 (0.7%)	0		
Fort McMurray	Taken	147	182	118	164	172	783
	Positive	0	0	0	0		
Total		10351		7506		1901	19758

Sexually Transmitted Disease (STD) Clinic — Laboratory Investigation

The most frequently performed laboratory procedures carried out in each clinic are demonstrated in the accompanying table. Each STD clinic has on site access to microscopes. All nurses have the capability to prepare and interpret methylene blue and gram stain of urethral and endocervical smears, darkfield microscopy and wet mount examinations. All other laboratory procedures are carried out by the Provincial Laboratories of Public Health in Calgary and Edmonton.

Examination of urethral smears demonstrates the prevalence of non-gonococcal urethritis in relation to gonorrhea. This rapid, simple investigation allows health care workers to easily make an accurate diagnosis. Vaginal wet mount and gram stain examinations are extremely useful in the investigation of bacterial vaginosis and candida. Trichomonas increased two fold from 1994. This was seen exclusively in Edmonton and Calgary, with nine percent and four percent of wet mount exams respectively, demonstrating motile trichomonas.

The only darkfield examinations carried out were in Calgary and there was a single positive. This reflects the very low incidence of infectious syphilis.

Although the number of gonococcal isolates continues to decrease, the proportion positive has remained stable. This ranged from a low of 0.3 percent in females attending the Calgary clinic to a high of 3 percent in men seen in Fort McMurray. Despite a total of only 74 isolates of *Neisseria gonorrhoeae* from men, six (eight percent) were rectal specimens. This clearly indicates unprotected homosexual contact with its attendant high risk of HIV transmission.

The prevalence of *Chlamydia trachomatis* fell marginally. The overall rates are 5.3 percent for women and 5.7 percent for men.

The prevalence of herpes simplex virus increased slightly in both men and women. However, these changes were too small to draw any firm conclusions.

Abnormal Pap smears reflect the presence of atypia, HPV effect and changes consistent with CIN I, II or III. Of all women undergoing a pap smear, 13-32 percent demonstrated abnormalities. This reaffirms the value of screening this high risk population at the time of STD examination.

Table 17 — Sexually Transmitted Disease Clinic Laboratory Investigations, Alberta, 1995

	Edmonton Clinic		Calgary Clinic		Fort McMurray Clinic		Total	
	Taken	Positive	Taken	Positive	Taken	Positive	Taken	Positive
Urethral Smear	1843		1136		164		3143	
Nisseria gonorrhoeae		78		13		16		107
Non-gonococcal urethritis		787		409		28		1224
Wet mount/gram stain	823		988		253		2064	
Bactrial vaginosis		110		165		85		360
Candida		192		159		33		384
Trichomonas		75		36		5		116
Darkfield	0	0	11	1	0	0	11	1
***Neisseria gonorrhoeae* culture**								
• **Male** urethra	2428	39	2212	19	154	5	4794	63
rectal	71	0	122	6	1	0	194	6
pharynx	162	0	155	5	0	0	317	5
Total	*2661*	*39*	*2489*	*30*	*155*	*5*	*5305*	*74*
• **Female** cervix/urethra	2493	22	1659	4	249	5	4401	31
rectal	2211	4	1594	5	234	0	4039	9
pharynx	45	0	16	0	1	0	62	0
Total	*4749*	*76*	*3269*	*9*	*484*	*5*	*8502*	*40*
***Chlamydia trachomatis* identification**								
• **Male** urethra/rectum	2642	114	2328	164	161	15	5115	291
• **Female** cervix/urethra	2567	139	1636	93	502	20	4705	249
Herpes simplex virus								
• **Male** urethra	151	11	12	3	0	0	163	14
lesion	273	83	254	84	32	6	559	173
Total	*424*	*94*	*266*	*87*	*32*	*6*	*722*	*187*
• **Female** cervix	397	26	149	21	65	3	611	50
lesion	336	90	249	82	16	3	601	175
Total	*733*	*116*	*398*	*103*	*81*	*6*	*1212*	*225*
Pap Smear	957	162	491	158	39	5	1487	325

Education Unit Activities

The education unit provides STD/HIV/AIDS education throughout Alberta. The unit fulfils its mandate by providing educational sessions for individuals and groups, managing a telephone information system and developing/reviewing STD educational resources.

Along with providing education/information and developing resources, the education unit staff are active members of interagency committees in both Calgary and Edmonton. By sharing resources and focusing on a specific target audience such as teens, ethnic, or aboriginal communities, these committees deal with STD/HIV prevention.

The total number of education sessions presented during 1995 was 714 with nurse educators providing 665 and medical staff 49. This is a reduction of eight percent from 1994. Half (53 percent) of all presentations by nurse educators were to students. Of these 352 presentations, 82 percent were to elementary, junior and senior high school students and 18 percent were to post secondary students. An increase in sessions at the senior high and post secondary level accounted for a seven percent increase from 1994. Of the sessions provided by the nurse educators, eight percent were inservice/ workshops for health care workers and the workplace, a decrease of 2 percent from 1994. In 1995 the education unit provided 18 inservices on universal precautions and basic HIV/AIDS for staff of private health care agencies in Calgary and Edmonton. Thirteen percent (84) of the nurse educator sessions were one-on-one consultations. These were clients/patients seeking in depth information or professionals requesting consultations on appropriate educational resources. Life skills education for adults and teens accounts for nine percent which is identical to 1994. Education sessions for the general public, displays and correctional institutions were three percent, three percent and 0.5 per cent respectively. Throughout 1995, 78 students from nursing, medicine, pharmacy or medical secretary courses as well as registered nurses from other agencies spent time with STD Services. This comprehensive hands on STD experience included clinical, educational and prevention/ control activities. Similar to the number in 1994, this group comprised 12 percent of the education unit sessions.

During 1995, the Education unit produced and disseminated a module on STD in pregnancy for second year nursing students and a fact sheet for professionals on Human Papilloma Virus. The STD Teaching Outline and Resource Guide used by Alberta Education for grade nine health and Calm 20 was updated and revised. A STD article was written for aboriginal teens and published in a magazine titled *Indian Child*. A further six STD education articles were written and translated into Vietnamese. These articles were published in the *Vietnam Times Newspaper*. Material was also prepared for two shows in Vietnamese on CKER radio. Buttons and balloons, for use with teenagers at displays and teen fairs, using the graphic "Don't Let STD Sneak Up on You" were designed and distributed.

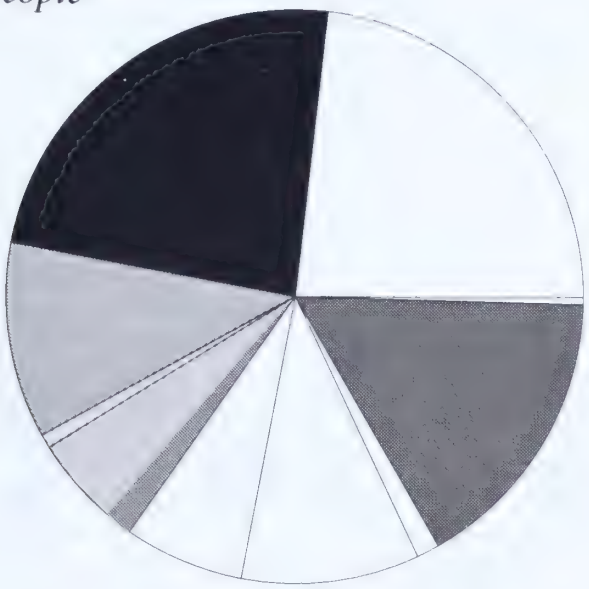
Figure 10 — Education Unit, Alberta, 1987 – 1995

Table 18 — Type of Education Session by Nurse Educator, Alberta, 1995

Types of Session		Number of Sessions		Number of Participants	
Schools			290		8025
	Elementary	5		111	
	Junior High	139		3845	
	Senior High	146		4069	
Post Secondary Schools			62		1882
	University/College/NAIT/SAIT	44		1575	
	Continuing Education	5		60	
	Nursing Schools	13		247	
Inservice			52		840
	Hospital	5		125	
	Health Unit	3		78	
	Other Health Care Workers	37		533	
	Workplace	7		104	
Life Skills			61		1139
	Adult	42		941	
	Adolescent	19		198	
General Public			17		263
	Adult	12		164	
	Adolescent	5		99	
Correctional Institutions			3		68
	Inmates	2		49	
	Staff	1		19	
In House Consultation			84		133
Displays			18		2775
Professional Orientation and Clinic/Education Experience			78		219
	Staff Orientation	7		7	
	Medical Students	37		113	
	Nursing Students	30		95	
	Pharmacy Students	3		3	
	Medical Reception	1		1	
	Total		665		12569
Presentations by Medical Staff			49		1705

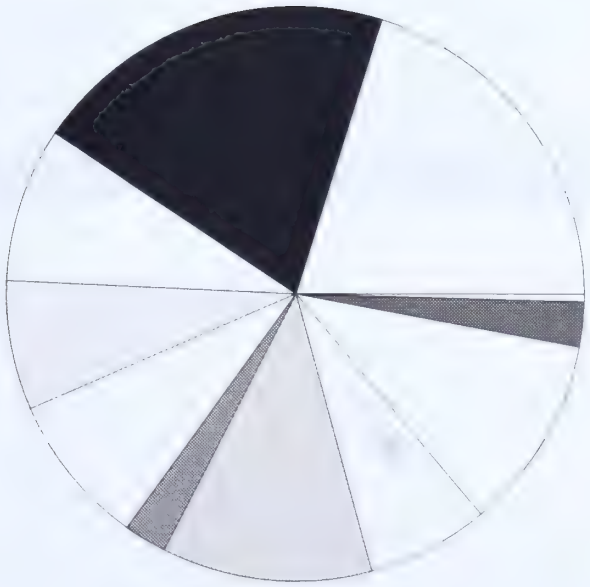
Figure 11 — Education Unit, Alberta, 1995

Number of People



- Elementary/Junior High — 3956
- Senior High — 4069
- Post Secondary — 1882
- In House Consultants — 133
- Inservice — 840
- General Public — 263
- Life Skills — 1139
- Medical Staff — 1705
- Health Care Students — 219
- Display — 2775
- Correctional Institution — 68

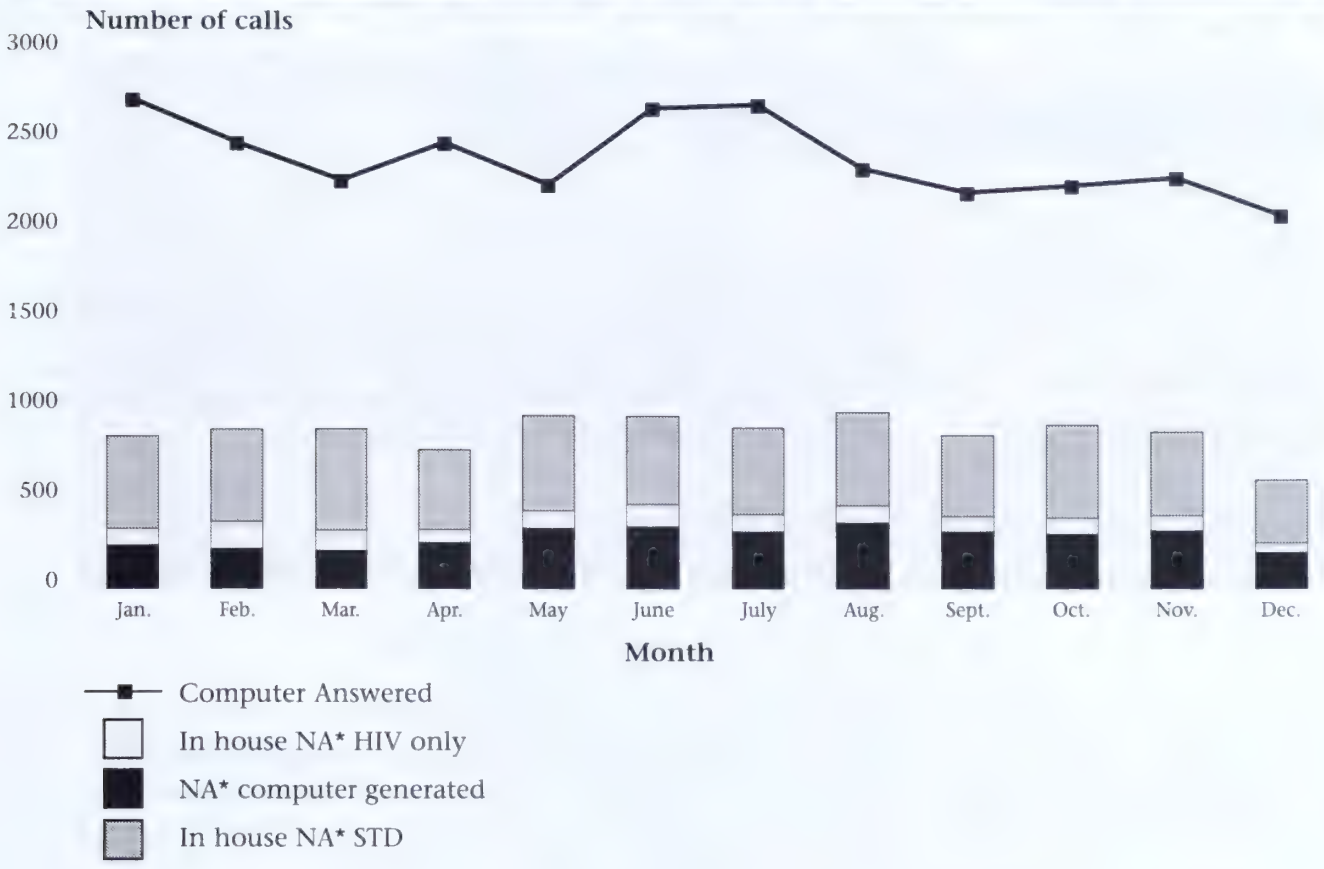
Number of Sessions



- Elementary/Junior High — 144
- Senior High — 146
- Post Secondary — 62
- Inservice — 52
- Life Skills — 61
- General Public — 17
- In House Consultants — 84
- Medical Staff — 49
- Health Care Students — 78
- Display — 18
- Correctional Institution — 3

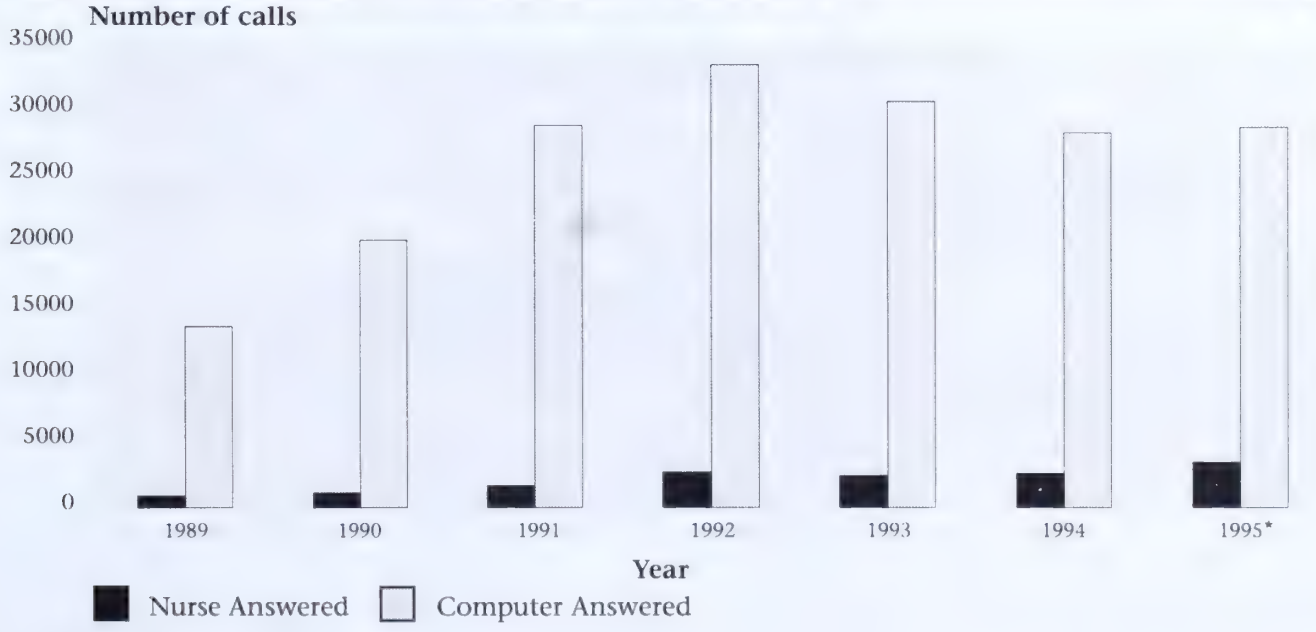
To gain access to STD HIV/AIDS information through the telephone information system, callers have many choices. The first choice is the computer-answered information line. This line is toll-free, province wide and provides 24 hour coverage. In 1995, the total calls to the toll-free line were 28,672, similar to the number in 1994. Of these 28,672 callers 65 percent listened to STD information and 36 percent to HIV/AIDS information. Callers listened to an average of 2.2 tapes based on information available for the last 10 months of the year. In January 1995, new computer equipment was purchased to operate the toll-free information line. Calls were answered jointly with both the old and new system until March when the old system was retired. With the new software there is an initial short greeting followed by a choice of either the STD or HIV/AIDS menu. The caller then chooses the tape(s) they wish to access. In December, the HIV tapes were revised and up dated by the Provincial AIDS Program. With the addition of a tape on Alberta statistics and a general HIV message in French and Cantonese, the number of tapes providing information on HIV/AIDS increased from nine to 12. During regular working hours callers to the toll-free line can choose to speak directly to a nurse by pushing zero on a touch tone phone. Previously the caller was required to hang up and redial. The outcome of this advancement was a 25 percent increase in nurse answered calls from 2,586 in 1994 to 3,451 in 1995. Of these calls 63 percent requested STD information and 37 percent HIV/AIDS information. The other choice clients have is to dial STD Services directly. In 1995, nurses answered 7,005 information calls from clients who dialled directly to STD Services in Calgary or Edmonton. This number is consistent with 1994. STD information was requested 85 percent of the time and HIV/AIDS information 15 percent. For computer answered calls there was an average of 2355 calls per month and for nurse answered calls an average of 871. Overall, the total number of calls demonstrates the effectiveness of using the telephone as a means to access current, personally relevant and confidential information.

Figure 12 — Nurse/Computer Answered Calls, Alberta, 1995



NA = Nurse Answered

Figure 13 — STD/AIDS Information Line, Alberta 1989 – 1995



Nurse answered 3541; Computer answered 28,672

Research: Clinical Investigation Unit

During 1995, the following research projects were undertaken or completed by the Clinical Investigation Unit (CIU) and/or the Edmonton and Calgary STD Clinics. This was an extremely busy and successful year with involvement in six studies completed, six studies ongoing and an additional eight studies initiated.

Studies Completed

1. Review of HIV Infected Patients with Atypical Mycobacterial Infection

   Principal Investigator — Patricia Campbell
   Co-investigator — Dr. B. Romanowski
   Participation — CIU, Edmonton STD Clinic

2. Comparison of Single Dose Azithromycin Therapy to 7 Day Doxycycline Therapy in the Treatment of NGU and Chlamydial Cervicitis

   Principal Investigator — Dr. B. Romanowski
   Sponsor — Pfizer Canada Inc
   Participation — CIU, Edmonton STD Clinic

3. Anonymous Unlinked HIV Seroprevalence Survey Among Persons Attending STD Clinics

   Principal Investigator — Dr. B. Romanowski
   Sponsor — Division of HIV/AIDS Epidemiology, Communicable Disease Epidemiology, Laboratory Centre for Disease Control, Ottawa
   Participation — CIU, Edmonton and Calgary STD Clinics, Provincial Laboratories of Public Health, Northern and Southern Alberta

4. Famciclovir versus Acyclovir in HIV Positive Patients With Recurrrent Herpes Simplex Infection

   Principal Investigator — Dr. B. Romanowski
   Sponsor — SmithKline Beecham Pharmaceuticals
   Participation — CIU, Edmonton STD Clinic, University of Alberta

5. Evaluation of HIV Partner Notification Carried Out by STD Services, Alberta Health

   Principal Investigator — Dr. B. Romanowski
   Co-Investigator — Ruth Sutherland
   Participation — STD Services, Alberta Health

6. Efficacy of Delavirdine Combined with DDI Versus DDI Alone in HIV Infected Individuals with CD4 Less Than or Equal to 300/mm3

   Principal Investigator — Dr. S. Shafran
   Co-investigator — Dr. B. Romanowski
   Sponsor — Upjohn Pharmaceuticals
   Participation — University of Alberta, CIU, Edmonton STD Clinic

Studies Ongoing

1. Evaluation of CSF Examination in Patients with Syphilis

   Principal Investigator — Dr. B. Romanowski
   Co-investigator — Ruth Sutherland
   Participation — Provincial STD Program

2. Canadian Women's HIV Study

   Principal Investigator — Dr. Catherine A. Hankins
   Co-investigator — Dr. B. Romanowski
   Participation — CIU, Edmonton STD Clinic, University of Alberta

3. Efficacy of Herpes Simplex Candidate Vaccine in the Suppression of Recurrent Genital Herpes Disease

   Principal Investigator — Dr. B. Romanowski
   Sponsor — SmithKline Beecham Pharmaceuticals
   Participation — CIU, Edmonton STD Clinic

4. Efficacy of Herpes Simplex Candidate Vaccine in the Prevention of Genital Herpes Primary Disease in HSV Negative Consorts of HSV Infected Sexual Partners

   Principal Investigator — Dr. B. Romanowski
   Sponsor — SmithKline Beecham Pharmaceuticals
   Participation — CIU, Edmonton STD Clinic

5. Comparison of Quality of Life in Patients Treated With Suppressive Acyclovir Versus Episodic Acyclovir in the Management of Recurrent Genital Herpes

   Principal Investigator — Dr. B. Romanowski
   Sponsor — Glaxo-Wellcome
   Participation — CIU, Edmonton STD Clinic

6. Efficacy of AZT Alone Versus AZT Plus Saquinavir Versus AZT Plus DDC Plus Saquinavir in Previously Untreated HIV Infected Individuals With CD4 Count Less Than 350/mm3

   Principal Investigator — Dr. S. Shafran
   Co-investigator — Dr. B. Romanowski
   Sponsor — Hoffman LaRoche Limited
   Participation — University of Alberta, CIU, Edmonton STD Clinic

Studies Initiated

1. Dyclonine HCL and EMLA For the Control of Acute Pain During Liquid Nitrogen Treatment for Genital Human Papilloma Virus

   Principal Investigator — Dr. B. Romanowski
   Co-investigator — Monica Gregory
   Participation — Edmonton STD Clinic

2. Randomized, Controlled, Double-blind Study to Compare the Efficacy and Safety of 3TC Versus 3TC Plus Loviride Versus Placebo in the Treatment of HIV-1 Infected Persons Taking Concurrent Zidovudine Containing Treatment Regimens With CD4 Counts Between 25-250 mm3

   Principal Investigator — Dr. S. Shafran
   Co-Investigator — Dr. B. Romanowski
   Participation — CIU, Edmonton STD Clinic

3. A Two Arm Comparative Trial For the Treatment of MAC Bacteremia in AIDS: a Clarithromycin/Ethambutol Regimen Containing Rifabutin or Placebo

   Principal Investigator — Dr. S. Shafran
   Co-investigator — Dr. B. Romanowski
   Sponsor — Pharmacia Inc
   Participation — CIU, Edmonton STD Clinic

4. Unlinked Anonymous HIV Serology on Stored Serum from 1983

   Principal Investigator — Dr. B. Romanowski
   Participation — CIU, Provincial Laboratory of Public Health for Northern Alberta

5. Evaluation of HIV-1 Urine EIA

   Principal Investigator — Dr. J. Preiksaitis
   Co-investigator — Dr. B. Romanowski
   Sponsor — Calypte Biomedical Corporation
   Participation — Edmonton STD Clinic, Provincial Laboratory of Public Health for Northern Alberta

6. Evaluation of Beacon Diagnostics OraScreen for Detection of HIV Antibodies in Saliva

   Principal Investigator — Dr. B. Romanowski
   Sponsor — Beacon Diagnostics Inc
   Participation — CIU, Edmonton STD Clinics

7. Comparison of *Chlamydia trachomatis* EIA and Cell Culture for the Detection of Chlamydia Antigen in Male Urine

   Principal Investigator — Mr. Errol Prasad
   Sponsor — Sanofi Diagnostics Pasteur
   Participation — Provincial Laboratory of Public Health Northern Alberta, Edmonton STD Clinic

8. Clinic Evaluation of Amplicor STD1 Panel (*Chlamydia trachomatis* & *Neisseria gonorrhoeae*) in Symptomatic and Asymptomatic Patients

   Principal Investigator — Mr. Errol Prasad
   Sponsor — Roche Diagnostic Systems
   Participation — Provincial Laboratory of Public Health Northern Alberta, Edmonton STD Clinic

Appendix 1 — Cases of Notifiable Diseases by Age And Sex, Alberta, 1995

	<1		1 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		20 - 39		40 - 59		60+		Age N/S		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Gonorrhea		1		2			1	6	28	69	54	72	52	13	62	14	25	1	1				401
Chlamydia	2	4	1				3	67	242	1586	485	1389	194	400	145	242	40	30	3	2	1	2	4838
NGU/MPC							4	8	238	230	622	247	398	135	452	118	192	39	19	1	61	17	2781
Chancroid												1											1
Syphilis (Total)									2	1	1	1	4	1	4	3	8	3	6	4			38
Primary										1	1		2										4
Late Latent									2			1	2	1	4	3	8	3	6	4			34
Total	2	5	1	2			8	81	510	1886	1162	1710	648	549	663	377	265	73	29	7	62	19	8059

Gonorrhea
Male — 223
Female — 178

Chlamydia
Male — 1116
Female — 3722

NGU/MPC
Male — 1986
Female — 795

Syphilis
Male — 25
Female — 13

Appendix 2 — Cases of Confirmed *Neisseria gonorrhoeae* According to Reporting Agency by Age and Sex, Alberta 1995

	<1		1 - 4		5 - 9		10 - 14		15 - 19		20 - 24		25 - 29		20 - 39		40 - 59		60+		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Physicians	0	1	0	2	0	0	1	3	16	51	33	49	29	10	34	12	9	0	0	0	250
Edmonton Clinic	0	0	0	0	0	0	0	1	7	9	8	9	11	2	14	1	5	0	0	0	67
Calgary Clinic	0	0	0	0	0	0	0	0	1	2	7	4	4	0	6	1	5	0	1	0	31
Fort McMurray Clinic	0	0	0	0	0	0	0	0	1	1	3	3	3	1	5	0	1	0	0	0	18
Positive Cultures	0	0	0	0	0	0	0	2	3	6	3	7	5	0	3	0	5	1	0	0	35
Total	0	1	0	2	0	0	1	6	28	69	54	72	52	13	62	14	25	1	1	0	401

Appendix 3 — Cases of Confirmed *Chlamydia trachomatis* According to Recording Agency by Age and Sex, Alberta, 1995

	<1		1 – 4		5 – 9		10 – 14		15 – 19		20 – 24		25 – 29		20 – 39		40 – 59		60+		Age N/S		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Physicians	2	3	0	0	0	0	1	50	174	1350	316	1200	113	354	104	207	21	24	1	2	1	1	3924
Edmonton Clinic	0	0	0	0	0	0	2	1	20	71	56	47	21	10	9	3	7	1	2	0	0	1	251
Calgary Clinic	0	0	0	0	0	0	0	0	25	38	62	30	30	6	20	5	10	0	0	0	0	0	226
Ft. McMurray Clinic	0	0	0	0	0	0	0	1	3	6	6	11	3	1	3	0	0	0	0	0	0	0	34
Positive Cultures	0	1	1	0	0	0	0	15	20	121	45	101	27	29	9	27	2	5	0	0	0	0	403
Total	2	4	1	0	0	0	3	67	242	1586	485	1389	194	400	145	242	40	30	3	2	1	2	4838

Appendix 4 — Cases of Non-gonococcal Urethritis/Mucopurulent Cervicitis According to Reporting Agency by Age and Sex, Alberta, 1995

	10 – 14		15 – 19		20 – 24		25 – 29		20 – 39		40 – 59		60+		Age N/S		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Physicians	3	6	177	144	388	132	203	69	200	52	60	16	8	0	61	17	1536
Edmonton Clinic	1	0	35	32	120	62	118	35	154	29	89	18	7	0	0	0	700
Calgary Clinic	0	1	24	31	102	41	74	24	93	32	38	4	4	1	0	0	469
Fort McMurray Clinic	0	1	2	23	12	12	3	7	5	5	5	1	0	0	0	0	76
Total	4	8	238	230	622	247	398	135	452	118	192	39	19	1	61	17	2781

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